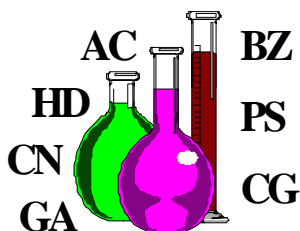


U.S. Army Center for Health Promotion and Preventive Medicine



General Facts About Nerve Agent GD

218-28-1096

General

GD is a lethal anticholinesterase agent. Although it is primarily a vapor hazard, its toxic hazard is high for inhalation, ingestion, and eye and skin exposure. Its rate of detoxification in the body is low.

Synonyms

Pinacolyl methylphosphonofluoridate;
1, 2, 2-Trimethylpropyl methylphosphonofluoridate;
Methylpinacolyl oxyfluorophosphine oxide;
Pinacolyl oxymethylphosphonyl fluoride;
Pinacolyl methanefluorophosphonate;
Methylfluoropinacolylphosphonate;
Fluoromethylpinacolyl oxyphosphine oxide;
Methylpinacolyl oxyphosphonyl fluoride;
Pinacolyl methylfluorophosphonate;
1, 2, 2-Trimethylpropoxyfluoromethylphosphine oxide;
GD;
EA1210;
Zoman; Soman
PFMP.

Description

GD-type nerve agents are clear, colorless, and tasteless liquids. They have a slight camphor odor and give off a colorless vapor.

Overexposure Effects

Signs and symptoms are the same regardless of route the poison enters the body (by inhalation, absorption, or ingestion): runny nose; tightness of chest; dimness of vision and miosis (pinpointing of the eye pupils); difficulty in breathing; drooling and excessive sweating; nausea; vomiting; cramps, and involuntary defecation and urination; twitching, jerking, and staggering; and headache, confusion, drowsiness, coma, and convulsion. These signs and symptoms are followed by cessation of breathing and death.

Agent GD - The chemical phosphonofluoridic acid, methyl-1, 2, 2-trimethylpropyl ester, Chemical Abstract Service Registry No. 96-64-0.

Emergency and First Aid Procedures

Inhalation: hold breath and don respiratory protection mask; if severe signs of agent exposure appear, administer immediately, in rapid succession, all three Nerve Agent Antidote Kits, Mark I injectors; use mouth-to-mouth resuscitation when approved mask-bag or oxygen delivery systems are not available, but do not use mouth-to-mouth resuscitation when facial contamination exists; administer oxygen if breathing is difficult; seek medical attention immediately.

Eye Contact: flush eyes immediately with water for 10-15 minutes then don a respiratory protective mask. Although miosis may be an early sign of agent exposure, do not administer an injection when miosis is the only sign present; seek medical attention immediately.

Skin Contact: don respiratory mask and remove contaminated clothing; wash contaminated skin with copious amounts of soap and water immediately using 10 percent sodium carbonate solution, or 5 percent liquid household bleach; rinse well with water to remove decontamination; administer an intramuscular injection with the Mark I Kit if local sweating and muscular symptoms occur; seek medical attention immediately.

Ingestion: do not induce vomiting; first symptoms are likely to be gastrointestinal; administer immediately 2 milligrams intramuscular injection of the MARK I Kit auto injectors; seek medical attention immediately.

Storage of GD

Nerve agent GD can be found in ton containers (heavy steel cylinders), artillery shells, mortar projectiles, rockets, and land mines.

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